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RUWENZORI EXPEDITION REPORTS.

17. MAMMALIA.

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[PLATES XX.—XXIV.*]

THE collection of Mammalia formed by the members of the Ruwenzori Expedition is, perhaps, both for number and quality, the finest ever made in any one locality in Africa, the British Museum set alone consisting of 363 † perfectly prepared modern skins and 62 spirit-specimens, representing 85 species and subspecies, of which no less than 34 have proved to be new. In addition, a considerable number of duplicates have been distributed.

This excellent result is due partly to the extreme richness of the Fauna, which combines elements of Congo, Cameroons, Uganda, and Great Lakes origin, and partly to the fact that no less than three members of the Expedition had had previous and successful experience in mammal-collecting—Messrs. Woosnam and Dent in Bechuana-land, and Mr. Carruthers in Palestine. All were trained and enthusiastic trappers, and, as a result, in spite of the climatic conditions under which they worked, the preparation of the skins is absolutely perfect.

So rich and varied, however, is the Fauna of Ruwenzori that no doubt much still remains to be done, especially among such forms as are not to be obtained by trapping, the list of Monkeys, Bats, and Ungulates being particularly likely to be increased in the future, while the series of Rodents is probably more complete in proportion than that of any other group.

As was to be expected, a considerable number of new species were discovered by the Expedition, many of them of a very striking and distinct character. Particularly noticeable are *Cercopithecus denti*, *Rousettus lanosus* (the Mountain Fruit-Bat), *Lophuromys woosnami*, *Otomys dartmouthi*, and *Funisciurus carruthersi*.

* For explanation of the Plates, see pp. 520–528.

† Of these, 42 specimens were obtained by Mr. Douglas Carruthers on Lake Kivu and the Upper Congo after the main work of the Expedition was over, including the new forms *Cercopithecus leucampyx aurorea*, *Funisciurus antoniae*, and *Lophuromys laticeps*.

The following is a complete list of the new forms discovered, with references to the original notices. A. is the first set of descriptions published by Thomas (Ann. Mag. N. H. (7) xviii. pp. 136 *et seqq.*, 1906) and B. the second (*op. cit.* xix. pp. 118 *et seqq.*, 1907).

<i>Cercopithecus denti</i>	P. Z. S. 1907, p. 2, pl. i.
„ <i>leucampyx carruthersi</i> Pocock.	P. Z. S. 1907, p. 691.
„ <i>leucampyx aurora</i>	<i>Infrà</i> , p. 485.
<i>Galago thomasi</i> Elliot	Ann. Mag. N. H. (7) xx. p. 189.
<i>Rousettus lanosus</i>	A. p. 137.
<i>Myosorex blarina</i>	A. p. 139.
<i>Crocidura niobe</i>	A. p. 138.
„ <i>fumosa montis</i>	A. p. 138.
<i>Sylvisorex lunaris</i>	A. p. 139.
„ <i>granti</i>	B. p. 118.
<i>Potiana richardsoni ochracea</i> Thos. & Wr. .	Ann. Mag. N. H. (7) xix. p. 372 (1907).
<i>Mungos sanguineus protens</i>	B. p. 119.
<i>Crossarchus fasciatus macrurus</i>	B. p. 120.
<i>Sciurus rufobrachiatus semlikii</i>	B. p. 120.
<i>Funisciurus antoniae</i> Thos. & Wr.	<i>T. c.</i> p. 377 (1907).
„ <i>carruthersi</i>	A. p. 140.
<i>Graphiurus soleatus</i>	<i>Infrà</i> , p. 499.
<i>Tatera ruwenzorii</i>	<i>Infrà</i> , p. 500.
<i>Otomys dartmouthi</i>	A. p. 141.
„ <i>denti</i>	A. p. 142.
<i>Mus jacksoni montis</i>	<i>Infrà</i> , p. 503.
„ <i>denniae</i>	A. p. 144.
„ <i>univittatus lunaris</i>	A. p. 145.
<i>Leggada bufo</i>	A. p. 145.
„ <i>fors.</i>	<i>Infrà</i> , p. 506.
„ <i>grata</i>	<i>Infrà</i> , p. 507.
<i>Thamnomys venustus</i>	B. p. 122.
„ <i>dryas</i>	B. p. 123.
<i>Enomys bacchante editus</i>	<i>Infrà</i> , p. 509.
<i>Lophuromys laticeps</i> Thos. & Wr.	<i>T. c.</i> p. 383 (1907).
„ <i>woosnami</i>	A. p. 146.
<i>Dasyomys montanus</i>	A. p. 143.
„ <i>medius</i>	A. p. 143.
<i>Arvicanthhis macculus</i>	<i>Infrà</i> , p. 515.

Mr. Woosnam's observations on the habits and local ranges of the species are added to our notes on the specimens, with his initials appended to them.

Family CERCOPITHECIDÆ.

1. COLOBUS OCCIDENTALIS Rochebr.

♂. 145. Mokia, S.E. Ruwenzori.

♀. 169, 170. Mpanga Forest, Fort Portal.

The second species of *Colobus* mentioned by Mr. Woosnam was most probably *C. ruwenzorii*.

[*Colobus* Monkeys were very rarely seen on Ruwenzori, but they occasionally ascended as high as 8500 ft., the limit of the forest-zone. Another species of *Colobus* was numerous in the Mpanga Forest east of Ruwenzori. The Red *Colobus* was not met with, and must be very rare in the district.—R. B. W.]

[*COLOBUS RUWENZORII* Thos.

Type obtained by Sir H. H. Johnston. No additional specimens were brought home by the Expedition.]

[*COLOBUS RUFOMITRATUS* TEPHROSCELES Elliot.

Discovered by Sir H. H. Johnston in 1900. From the Ruahara River, 4000 ft.]

2. CERCOCEBUS ALBIGENA JOHNSTONI Lyd.

♂. 172. ♀. 173. Mpanga Forest, Fort Portal.

In the existing doubt as to the proper allocation of *C. aterrimus* Oudemans, we follow Mr. Pocock, and use the name *C. johnstoni* for these specimens.

[A few of these Monkeys were seen in the Mpanga Forest, but they were not at all common. They were not found on Ruwenzori.—R. B. W.]

3. CERCOPITHECUS ASCANIAS SCHMIDTI Matsch.

♂. 171. Mpanga Forest, Fort Portal.

[Not found on Ruwenzori, but plentiful in the Congo and Mpanga Forests. In the Congo Forest it is a common sight to see the small native bows adorned with the red tails of this Monkey, slipped on to the unstrung bow while the skin is green.—R. B. W.]

4. CERCOPITHECUS DENTI Thos.

184. Avakubi, E. Congo Forest.

A member of the *C. campbelli-mona* group, but not darkened on the posterior back and hind limbs, and with a very sharply contrasted white belly.

Upper surface of head and neck olive-grey, the usual light frontal band present but not conspicuous. Back dark grizzled chestnut-brown (nearest to "umber-brown" of

Ridgway); colour of rump not darker, but, on the contrary, passing gradually into the paler tone of the hips and hind legs. Under surface from chin to anus, and inner sides of limbs to wrists and ankles, clear creamy white, very sharply defined from the darker colour, not only on the limbs, as in *C. campbelli* and others, but also along the flanks, where the white rises nearly halfway up the lateral aspect of the animal. Ears with short yellowish tufts rising from their inner surfaces. Outer sides of fore limbs deep black from elbows. Hind limbs grizzled yellowish-olive, lighter than the back, down to and including the ankles; the metatarsals and toes black. Tail indistinctly blackish above at the base, then dull greyish white for two-thirds of its length, darkening again to black on its terminal third.

Dimensions of the type (measured in the flesh):—

Head and body 501 mm.; tail 850; hind foot 155; ear 40.

Skull: greatest length 105 mm.; basal length 75; breadth of brain-case 55; length of upper cheek-tooth series 23.

Hab. Between Mawambi and Avakubi, E. Congo Forest; alt. 3000 ft.

Type. Adult male. B.M. no. 7.1.2.1. Original number 184. Collected 23rd October, 1906, by Mr. R. E. Dent.

This handsome Monkey is most nearly allied to the W. African *C. campbelli*, but differs by its grizzled olive-yellowish instead of black hind limbs, the absence of black on its posterior back, its more or less greyish-white tail, and by the high and sharply defined line separating the colours of the flanks and belly.

Cercopithecus denti is one of the most striking discoveries made by the members of the Expedition. A figure of it has already been published.

[This was the only example seen of this beautiful Monkey. The white belly rendered it almost invisible from below.—R. B. W.]

5. *CERCOPITHECUS LEUCAMPYX CARRUTHERSI* Pocock.

♀. 225. Mubuku Valley, E. Ruwenzori. 10,000 ft.

6. *CERCOPITHECUS LEUCAMPYX STUHLMANNI* Matsch.

♂. 176. ♀. 177. Mpanga Forest, Fort Portal.

[These Monkeys were numerous on Ruwenzori up to 9500 ft., also in the Congo and Mpanga Forests. They were most numerous on Ruwenzori, just where the forest and bamboo zones intermingle, at 8500 ft., for, like the Chimpanzees, they frequent the bamboo zone in search of the young shoots on which they feed. While thus occupied they are occasionally surprised and killed by leopards, and probably on this account they are most frequently seen where the bamboo and forest are mixed, where they have a safe retreat.—R. B. W.]

7. *CERCOPITHECUS LEUCAMPYX* AURORA, subsp. n.

A *Cercopithecus* intermediate between the *C. leucampyx* and *C. albogularis* groups, with the dark limbs and belly of the former and the bright coloured back of the latter.

Size about as in *C. l. stuhlmanni*. Fur very long (50 mm.) on back, still longer on shoulders (70–80 mm.). General colour above near “buff-yellow” (rather paler and brighter); individual hairs white at the base, passing into pale buffy-yellow with three black rings (rings and intervals about 3 mm. each). The head, unfortunately, is missing, but the dorsal coloration is carried on to the nape. On the points of the shoulders it becomes much darker, the individual hairs being black almost to the base with three yellow rings (each 3 mm.) towards the point. The outer sides of the thighs greyish-black, the hairs pale slate-grey with a subterminal black ring (3 mm.) and a white tip (2–3 mm.). Tail losing almost immediately (within 100 mm. from base) all trace of the dorsal yellow colouring, and taking the same greyish coloration as the outer side of thighs, at first with the white colour in excess, then gradually through an increase of black shading into pure black at the extreme tip (100 mm.). Arms to the shoulders, belly, and inner side of thighs pure black, the hairs black to their bases.

Tail short, barely 700 mm. in length, as compared with 900 mm. in an example of *C. l. stuhlmanni*.

Hab. South end of Lake Kivu.

Type. Adult male. B.M. no. 7.7.4.1. Collected and presented to the Museum by Mr. Douglas Carruthers.

This handsome Monkey, while resembling the members of the *C. albogularis* group in its yellow dorsal colouring, is easily distinguishable from all of them by its dark hind limbs and black belly, in which it resembles the members of the *C. leucampyx* group.

Family LEMURIDÆ.

8. *GALAGO THOMASI* Elliot.

Ann. Mag. N. H. (7) xx. p. 189 (1907).

♂. 684, and ♀ in spirits. Fort Beni, Semliki Valley.

♂. 688, 689. Mpanga Forest, Fort Portal.

Described on these specimens by Prof. Elliot.

[This little Lemur was not seen on Ruwenzori, but it is difficult to believe that it is not to be found in some of the wooded valleys below 6000 ft., for it was found in the Congo Forest at Fort Beni, and in the Mpanga Forest it was extraordinarily numerous. It is entirely nocturnal, and appears to spend the day, not in the tree-tops, but low down in the undergrowth or in the dense masses of tangled creepers on the lower branches and tree-trunks. Late in the evening, when it is almost too dark to see, it suddenly appears, and its shrill chirrup may be heard in all directions. It

mounts swiftly from the undergrowth to the tops of the trees, passing from tree to tree with great agility, often making considerable jumps. If disturbed in the daytime it moves quite slowly, almost like a chameleon.—R. B. W.]

Family PTEROPODIDÆ.

9. *EIDOLON HELVUM* Kerr.

♂ (imm.) in spirits. Between Mawambi and Avakubi, E. Congo Forest.

Dr. K. Andersen, F.Z.S., has recently * shown that the above is the correct name of the widely distributed Bat usually known as *Cynonycteris*, *Rousettus*, or *Pterocyon stramineus*, Geoff.

10. *ROUSETTUS LANOSUS* Thos. (Plate XX.)

♀. 116. Mubuku Valley, E. Ruwenzori. 13,000 ft.

♂, ♀, & young in spirits. Mubuku Valley, E. Ruwenzori. 13,000 ft.

A member of the *R. leachi* group, the limbs being thickly covered with hair.

Size and general characters about as in *R. leachi*. Fur loose and shaggy, very abundant, its limits not sharply defined as in *R. leachi*; that on the head about 8 mm. in length, mixed with a large number of much longer hairs, attaining over 20 mm. On the back the fur is thick and woolly, passing out on to the proximal half of the upperside of the forearms, and continued thickly down the hind-limbs and the wing-membrane, external to them, to the ankles, the feet being also thinly clothed above. Interfemoral thickly furry above, except just along its posterior margin. Below, the wings are thinly hairy to a point level with the middle of the forearm, the hind-limbs and interfemoral membrane being also less thickly haired than on the upper surface. Ears narrow, rather longer than the muzzle. Palatal ridges as in *R. leachi*.

General colour above bistre-brown, becoming warmer posteriorly; head darker. Under surface near broccoli-brown, but with a yellowish suffusion; some of the longer hairs quite yellow.

Skull rather more delicately built than in *R. leachi*, the bones thinner and lighter, muzzle rather longer and narrower; postorbital processes very thin; anterior palatine opening unusually broad.

Teeth conspicuously smaller throughout, each molar and premolar slightly shorter and very much narrower than in the allied species.

Dimensions of the type (measured on the spirit-specimen):—

Forearm 88 mm.

Head and body 134; tail 16, tail free from membrane 9; head 46; ear 23; third finger, metacarpus 60, first phalanx 41, second phalanx 57; lower leg and foot (c. u.) 62.

* Ann. Mag. N. H. (7) xix. p. 504 (1907), and (8) i. p. 433 (1908).

Skull: length to tip of nasals 42; basal length 37·5; zygomatic breadth 25; breadth of brain-case 17·4; palate length from anterior palatine foramina 19; breadth of palatine foramina 3·4; length of upper tooth-row from front of canine 14·5; the same below, 16·2; first upper molar $2\cdot3 \times 1\cdot2$.

Hab. Mubuku Valley, E. Ruwenzori. 13,000 ft.

Type. Adult male (in spirits). B.M. no. 6.7.1.2. Collected by Mr. R. B. Woosnam. Three specimens obtained.

This species is allied to *R. leachi*, but is at once distinguishable from that and every other species by the thick woolly covering of its hind limbs and its remarkably narrow molars.

The occurrence of a Fruit-Bat at such an altitude as 13,000 ft. is very remarkable.

It is interesting to note that this and the following species differ from all other members of the genus in having the wing extending to the second toe, while the present form is further differentiated by the obsolescence of the antetragal lobe.

[This Bat frequented the cliffs and caves on Ruwenzori at 12,000–13,000 ft., but did not appear to spend the night at this altitude, as numbers always flew down the valley in the evening, apparently to feed. There was certainly nothing above 10,000 ft. for such a Bat to feed upon, and nothing above 7000 ft. but *Podocarpus* berries; but it is remarkable that only one example of this species was caught in the nets set at 6000 ft., while *R. angolensis* was caught by dozens. Possibly it is very uncommon; the greatest number seen in an evening at 12,500 ft. was six. The native name for this and all other large Bats in the district is “Bihukusi.”—R. B. W.]

11. ROUSETTUS ANGOLENSIS Bocage.

♂. 110, 111, 117; 112, 113, 118, 119, 120. ♀. 96, 277, 278; 97, 100, 101, 103, 219. Mubuku Valley, E. Ruwenzori. 5000 ft.

4 in spirits. Mubuku Valley, E. Ruwenzori. 5000 ft.

[Very plentiful in the lower valleys of Ruwenzori, but not seen above 6500 ft. Native name “Bihukusi.”—R. B. W.]

12. EPOMOPS FRANQUETI Tomes.

♂. 167. 30 miles N.W. of Fort Beni, Semliki Valley.

[A few seen in the Congo Forest, but not at all common.—R. B. W.]

13. EPOMOPHORUS ANURUS Heugl.

Epomophorus sp. inc. Woosnam, anteà, pt. i. p. 17 (1909).

♀. 109, and ♀ in spirits. Mubuku Valley, E. Ruwenzori. 5000 ft.

♂. 150, 151. ♀. 152. Mokia, S.E. Ruwenzori. 3400 ft.

Pending the revision of the group by Dr. K. Andersen we give the above provisional names for the two Epaulet Bats obtained.

[Only a few of these Bats were met with on Ruwenzori; they were not seen above 6500 ft., and were more plentiful on the plains below.—R. B. W.]

Family MEGADERMATIDÆ.

14. *LAVIA FRONS* E. Geoff.

♂. 144, 289; 134, 142, 143. ♀. 135, 672; 288, 295, 300, 301, 669, 670, and 5 in spirits. Mokia, S.E. Ruwenzori. 3400 ft.

[These Bats were never seen on the mountains, but were very plentiful among the acacia-trees on the plains around the south end of Ruwenzori at an altitude of 3400 ft. They spent the day hanging up in the trees fully exposed to the sun, and were not easy to approach, as they took flight at the least alarm. The natives distinguished this Bat from all others, and called it "Bihuguhugu."—R. B. W.]

15. *PETALIA HISPIDA* Schreb.

♀. 149, 673. Mokia, S.E. Ruwenzori. 3400 ft.

1 ♂, 2 ♀ in spirits. Mubuku Valley, E. Ruwenzori. 5000 ft.

[Occasionally seen up to 5500 ft. on Ruwenzori. They were most numerous among the acacia-trees on the plains around the south end of the range. Native name "Kasalamatwi."—R. B. W.]

16. *PETALIA ARGE* Thos.

♂. 165, 166. Fort Beni, Semliki Valley. 3000 ft.

♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

[These little Bats are not uncommon in the Congo Forest, but, like all small Bats in such a place, they were extremely difficult to obtain. They were never caught in a long net set between the trees, and shooting them as they dived in and out among the trees was almost impossible, and still more impossible is it to find them when shot. They were occasionally seen flying low over the water on the Aruwimi River.—R. B. W.]

Family VESPERTILIONIDÆ.

17. *PIPISTRELLUS NANUS* Peters.

♂. 48, 243, 250, 633, 635; 50, 245, 249, 634, 638. ♀. 49, 244, 251, 632, 636, 637. Mubuku Valley, E. Ruwenzori. 5000 ft.

6 in spirits. Mubuku Valley, E. Ruwenzori. 5000 ft.

[These little Bats inhabited chiefly the banana-plantations, and were found on Ruwenzori up to 6000 ft.—R. B. W.]

18. *PIPISTRELLUS PULCHER* Dobs.

♂. 602. W. of Entebbe.

[A single specimen obtained near Entebbe, the only example met with by the Expedition.—R. B. W.]

19. *SCOTOPIHILUS NIGRITA* Schreb.

♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

Family *EMBALLONURIDÆ*.

20. *TAPHOZOUS PELI* Temm.

2 ♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

♂. 158. Fort Beni, Semliki Valley. 3000 ft.

[Vast numbers of these Bats were to be seen in the Congo Forest, but they were not seen anywhere else. They hang up only in the trees and never in the houses.—R. B. W.]

21. *TAPHOZOUS MAURITIANUS* E. Geoff.

♂. 201. W. of Entebbe.

♂. 320. Manyuna, Upper Congo (*Douglas Carruthers*).

[A single specimen of this Bat was obtained in one of the rest-houses near Entebbe, the only example I saw.—R. B. W.]

[*NYCTINOMUS ALOYSII-SABAUDIE* Festa.

Boll. Mus. Zool. Torino, xxii. no. 546, p. 1 (1907).

Discovered by the Duke of the Abruzzi. Forearm 51 mm.]

Family *SORICIDÆ*.

22. *MYOSOREX BLARINA* Thos. (Plate XX.)

♂. 252. Mubuku Valley, E. Ruwenzori. 10,000 ft.

1 in spirits. Mubuku Valley, E. Ruwenzori. 10,000 ft.

A dark short-tailed species with the mole-like appearance of *M. sclateri talpinus*.

Size rather less than in *M. sclateri*. Fur thick and mole-like; hairs of back about 8 mm. in length; a number of interspersed longer hairs on the rump attaining 12–13 mm. General colour blackish-brown, slightly iridescent, very much as in *M. s. talpinus*; under surface scarcely lighter, more smoky brown than in

M. s. talpinus. Hands, feet, and tail blackish, the anterior claws very large. Ears very short, quite hidden in the fur.

Skull stout and heavily built—compared with that of *M. sclateri* it is smaller, shorter in the muzzle, but proportionally broader, the interorbital region and brain-case as broad as in the larger species.

Teeth rather small throughout, the anterior incisors particularly delicate; relative proportions of the unicuspsids as in *M. sclateri*, the minute posterior one about one-tenth the size of the second, which is half the size of the third, the latter being about three-fourths the size of the first.

Dimensions of the type (measured in the flesh):—

Head and body 74 mm.; tail 42; hind foot 14; ear 7.

Skull: condylo-basal length 22.1; basal length 19.6; anterior breadth 7; interorbital breadth 5.5; greatest breadth across brain-case 12; length of upper tooth-series 10.8; height of i^1 2.

Type. Male. B.M. no. 6.7.1.35. Original number 252. Collected 27th January, 1906, by Mr. Douglas Carruthers.

The interest of this animal lies in the immense extension its discovery gives to the range of the genus *Myosorex*, which (since the species without the extra tooth in the lower jaw were separated as *Sylvisorex*) has been known only from South Africa, the Zoutpansberg district of the Transvaal being the most northern recorded locality. That the genus should turn up again at 10,000 ft. on Ruwenzori is a most interesting fact.

The velvety mole-like fur of *M. blarina* distinguishes it from all other forms except the decidedly larger *M. sclateri talpinus* of Zululand.

[Two specimens of this Shrew were caught near a stream in very swampy ground at 10,000 ft. They took a bait of worms.—R. B. W.]

23. *CROCIDURA NYANSÆ* Neum.

♂. 69, 619, 623. ♀. 65, 651, and 1 in spirits. Mubuku Valley, E. Ruwenzori.

[These Shrews were not trapped above 8500 ft., the limit of the forest-zone. They have a large oval-shaped gland, of a light pink colour, behind the shoulder on either side, which gives out an oil or grease with a powerful odour of musk and clove. The glands are long, narrow, and smaller in the female and have no odour. Native name "Mususu."—R. B. W.]

24. *CROCIDURA* sp.

♀. 125. Mubuku Valley, E. Ruwenzori. 8500 ft.

♀. 152. Fort Beni, Semliki Valley. 3000 ft.

♀. 164. Butagu Valley, W. Ruwenzori. 7000 ft.

1 in spirits. Mpanga Forest, Fort Portal.

Allied to *C. nyansæ* Neum.

25. *CROCIDURA NIOBE* Thos.

♂. 205. ♀. 236, 618. Mubuku Valley, E. Ruwenzori. 6000–7000 ft.

General proportions of *C. maurisca* Thos., with which it shares the unusual character of the almost entire absence of long bristles on the tail. Fur about 5 mm. long on the back. General colour dark blackish-grey ("blackish-slate"), with indistinct silvery mottling. Under surface scarcely lighter, the tips of the hairs brown. Hands and feet pale brown; fore claws rather smaller than hind. Tail long, slender, not incrassated, practically without longer bristles—a few present on the base only; uniformly blackish above and below.

Skull normal in build, without the peculiar delicacy of that of *C. maurisca*; the brain-case low, the muzzle stout and conical. Teeth as usual, the unicusps broader than long, very unlike the narrow slender teeth of *C. maurisca*.

Dimensions of the type (measured in the flesh):—

Head and body 68 mm.; tail 63; hind foot 13; ear 10.

Skull: greatest length (including incisors) 20; greatest breadth 9.1; length of upper tooth-row 8.2.

Type. Female. B.M. no. 6.7.1.32. Original number 618. Collected 10th January, 1906, by Mr. R. B. Woosnam. Three specimens.

This Shrew may be readily distinguished from *C. maurisca*, the only species with its proportions and tail-characters, by its more plumbeous colour and its broader skull and teeth.

[This Shrew was not met with on Ruwenzori above 7000 ft. It appeared to frequent the elephant-grass below the forest.—R. B. W.]

26. *CROCIDURA* sp.

2 ♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

Closely allied to *C. niobe*.

27. *CROCIDURA FUMOSA* MONTIS Thos.

♂. 658. ♀. 78, 659. Mubuku Valley, E. Ruwenzori. 12,500 ft.

♂. 160. ♀. 161. Butagu Valley, W. Ruwenzori. 7000 ft.

Size and other essential characters as in *C. fumosa* from Mount Kenya, but the fur longer (hairs of back 7.0–7.5 mm.) and the general colour a dark plumbeous grey, without the distinct brownish tone so marked in true *C. fumosa*. The ends of the hairs blackish, with a silvery subterminal ring.

Dimensions of the type (measured in the flesh):—

Head and body 77 mm.; tail 61; hind foot 15; ear 11.

Skull: greatest length (including incisors) 22; greatest breadth 10.

Type. Female. B.M. no. 6.7.1.28. Original number 78. Collected 16th February, 1906, by Mr. R. E. Dent.

[Examples of this Shrew were caught between 7000 ft. and 12,500 ft. They inhabited both the swampy bottoms of the valleys and also the drier forested slopes.—R. B. W.]

28. *CROCIDURA* sp.

♀. 2. 100 miles W. of Entebbe. 3700 ft.

♀. 601. 50 miles W. of Entebbe. 4100 ft.

Allied to *C. cunninghami* Thos.

29. *SYLVISOREX LUNARIS* Thos.

♂. 237, 257, 643. ♀. 283, 647, 657. Mubuku Valley, E. Ruwenzori. 6000–12,500 ft.

A large slaty-grey species, with a long slender muzzle.

Size much larger than in *S. morio*, about equal to middle-sized species of *Crocidura*. Fur rich and velvety; hairs of back about 6 mm. in length. General colour dark slaty-grey, without variegation, but with a slight iridescence on the tips of the hairs. Under surface little lighter, the tips of the hairs pale brown. Upper surface of hands and feet brown, but the flesh along their inner halves is paler than the outer; fore and hind claws about equal in size. Tail much shorter than head and body, very finely haired, without longer bristles; brown above, rather paler below.

Skull markedly different from that of *S. morio* by its much larger size, slender build, and long muzzle.

Teeth delicate. Unicuspid narrow, the anterior about twice the area in cross-section of the other three, which are subequal. Lower incisors uniform in thickness, not tapering, their upper edges strongly serrated, with three well-marked notches.

Dimensions of the type (measured in the flesh):—

Head and body 86 mm.; tail 54; hind foot 14.5; ear 10.

Skull: condylo-basal length 22; basal length 19.8; anterior breadth 6.4; greatest breadth across brain-case 10; length of upper tooth-series 10.

Type. Male. B.M. no. 6.7.1.38. Original number 643. Collected 30th January, 1906, by Mr. R. B. Woosnam.

This distinct species may be readily distinguished from its W. African allies *S. morio* and *S. preussi* by its larger size.

[This Shrew was caught at 6000 ft. on Ruwenzori and also as high as 12,500 ft. It appeared to inhabit chiefly swampy ground.—R. B. W.]

30. *SYLVISOREX GRANTI* Thos.

♂ in spirits. Mubuku Valley, E. Ruwenzori. 10,000 ft.

A medium-sized species, with tail about equal to the head and body.

Size much less than in the other Ruwenzori species, *S. lunaris*; about the same as in the Nyasan *S. sorella*. Fur very long; hairs of back over 7 mm. in length. General colour dark slaty-grey above, little paler below, but as the only specimen is in spirits, the tones cannot be described with accuracy. Hands and feet pale brown, the digits rather lighter. Tail almost as long as the head and body, finely haired, brown above, rather paler below.

Skull short, broad, and rounded, not unlike that of *S. sorella*, but with a broader flatter brain-case and an even shorter muzzle. Teeth practically as in *S. sorella*, the second and third upper unicuspid rather more nearly subequal.

Dimensions of the type :—

Head and body 55 mm.; tail 54; hind foot 13·1.

Skull: condylo-basal length 17; breadth across palate 5·3; breadth across brain-case 8·9; front of i^2 to back of m^1 6·4; length of lower tooth-row 7.

Type. Adult male in spirits. B.M. no. 6.12.4.85. Collected 9th April, 1906, by Mr. R. E. Dent.

This species is of the intermediate size found in *S. sorella*, being markedly smaller than *S. lunaris* and *S. morio*, and equally larger than the pigmy *S. johnstoni*. From *S. sorella* it is at once distinguished by its far shorter tail.

Named in honour of Mr. W. R. Ogilvie-Grant, by whom the Ruwenzori Expedition was organised.

[This little Shrew was caught in some swampy ground at the foot of a steep cliff at 10,000 ft. It was the only example obtained.—R. B. W.]

Family CHRYSOCHLORIDÆ.

31. CHRYSOCHLORIS STUHLMANNI Matsch.

♂ . 285, 644, 663. ♀ . 275. Mubuku Valley, E. Ruwenzori. 7000–10,000 ft.

♀ . 162. Butagu Valley, W. Ruwenzori. 7000 ft.

[Golden Moles were not at all common on Ruwenzori. They were found as high as 10,000 ft., at which altitude one was trapped in some very swampy ground. The natives distinguished it from a Mouse and called it “Mbumahume.”—R. B. W.]

Family FELIDÆ.

[FELIS PARDUS RUWENZORII Camerano.

Boll. Mus. Zool. Torino, xxi. No. 343, p. 1 (1906).

Obtained by the Duke of the Abruzzi.]

32. FELIS CHRYSOTHRIX COTTONI Lyd.

♂ . Avakubi, E. Congo Forest. 3000 ft.

[A flat skin obtained from a native.—R. B. W.]

Family VIVERRIDÆ.

33. *GENETTA STUHLMANNI* Matsch.

♀. 136. Mokia, S.E. Ruwenzori. 3400 ft.

♂. 124, 276. ♀. 10 (juv.), 287. Mubuku Valley, E. Ruwenzori. 6000-7000 ft.

Prof. Matschie has described (Verhandl. V. Internat. Zool. Congresses zu Berlin, 1901, p. 1142) three species of Genet from E. Africa under the names *G. stuhlmanni*, *G. suahelica*, and *G. erlangeri*. We have not been able to inspect the types of these species, but in the Natural History Museum are 9 or 10 specimens from N. Nyasa, Kilimanjaro, Kikuyu, and Entebbe, which have been identified by Prof. Matschie as being either *G. stuhlmanni* or *G. suahelica*. Adding the present specimens to these, we have a series of over a dozen, the extreme individuals of which are easily separable; but these extremes are linked up by the intervening individuals in such a way that after most careful examination both of skins and skulls we have been obliged to acknowledge that we cannot find any constant character by which these forms may be separated. In the present series the low-level specimen shows scarcely any trace of black in its coloration, while among the high-level individuals the palest shows a rustiness in the centres of the spots, while the darkest has black spots on a grey ground. Nevertheless the skulls, apart from the difference of sex, are indistinguishable from one another. The first name employed by Prof. Matschie in this group of Genets is *G. stuhlmanni*, which we have accordingly adopted for these Ruwenzori specimens.

Special attention should be drawn in this, and no doubt in other Genets, to the marked sexual difference in the size of the carnassial teeth. Here, for example, the outer length of the upper carnassial is 8.6 and 8.3 mm. in the two males and 7.1 and 7.3 mm. in the two females. Naturalists are accustomed to expect a sexual difference in the size of the canines, but little if any notice has been taken of such a sexual difference in the carnassial teeth.

34. *GENETTA VICTORIÆ* Thos.

○. Avakubi, E. Congo Forest.

This is the first specimen of this very handsome and well-marked species which the Museum has received since it was described from a flat skin by Thomas. It is most unfortunate, therefore, that this specimen, like the type, has no skull.

[A flat skin obtained from a native in the Congo Forest. The natives say the species is not uncommon.—R. B. W.]

35. *GENETTA BETTONI* Thos.

♂. 106. ♀. 652, 661, 667. Mubuku Valley, E. Ruwenzori. 7000-10,000 ft.

The type locality of this species was in the Mau District of Uganda. The present series agree with the type in all essential characters. The body-measurements recorded

by Thomas in his original description were based on dry skins. The following (in mm.), taken from fresh specimens and recorded by the collector, are therefore of interest:—

	<i>G. bettoni</i> .			<i>G. servalina</i> .
	652, ♀. 661, ♀. 667, ♀.			Gaboon, Ansorge. ♀.
Head and body . . .	410	425	445	542
Tail	375	365	395	500
Hind foot	78	74	79	101
Ear	41	38	40	40

We have added for comparison the dimensions of a specimen of *G. servalina* from Gaboon collected by Dr. Ansorge.

Thomas has noted the difference between the two species in the size and colour of the feet, and we would further call attention to the comparatively short tail, with 9–10 pale rings, of *G. bettoni*, which contrasts strongly with the long 12–13-ringed tail of *G. servalina*.

With reference to the dental differences between the sexes noted above in *G. stuhlmanni*, we may record that in three females the length of the upper carnassial on its outer side is 6·9, 7, and 7·3 mm., while in the male it is 8·1 mm.

[This Genet was not uncommon on Ruwenzori up to 8500 ft., the limit of the forest-zone. It was met with also in the acacia country on the plains around the south end. Native name “Mwaga.”—R. B. W.]

36. *POIANA RICHARDSONI* OCHRACEA Thos. & Wr.

Near Yambuya, Aruwimi R., Congo Forest.

[A flat skin obtained from a native who was wearing it on a belt and was going to make a pouch of it for holding pipe and tobacco. We noticed that it was a new skin to us, and exchanged it for a few pinches of salt.—R. B. W.]

37. *NANDINIA BINOTATA* Gray.

♂. 130. Mubuku Valley, E. Ruwenzori. 5000 ft.

[A single specimen caught by a native at the foot of the mountains. In the Congo Forest near Avakubi a very young kitten of this species was obtained not more than a few days old. No milk was to be had, but it thrived well on a diet of ripe banana mashed up with plasmon powder. It is now a fine healthy specimen, and has survived an English winter in the ordinary temperature of a house. Native name “Lusaemba.”—R. B. W.]

38. *MUNGOS PALUDINOSUS* G. Cuv.

In spirits. 136. Basoko, Upper Congo R. 1500 ft.

[This young Mongoose was given to us by a French missionary, who said it was

seven days old. As no milk was obtainable he had been feeding it upon "palm-oil"! which had so upset its digestive system that we failed to keep it alive. Natives say this animal is not uncommon and frequents the reed-beds on the river-banks.—R. B. W.]

It is much to be regretted that no adult specimen was obtained from this interesting locality.

39. *MUNGOS SANGUINEUS PROTEUS* THOS. (Plate XXI.)

2 ♂, ♀. 99, 108, 132. ♀. 114, 115, 128. Mubuku Valley, E. Ruwenzori. 5000–7000 ft.

A very variable form, usually strongly affected by melanism.

In the single wholly non-melanistic specimen the colour throughout, of body, limbs, and tail (apart from the black terminal pencil), is grizzled tawny ochraceous, darkened on the posterior back; the upper surface of the hands and feet terminally rich rufous. From this there is a complete series of intergradations to one in which the body is blackish-bistre, the tail even darker, practically black throughout, and the feet deep glossy black. The type is an intermediate specimen, its general colour mummy-brown, but its feet and tail wholly blackish.

Dimensions of the type (measured in the flesh):—

Head and body 306 mm.; tail 260; hind foot 59; ear 25.

Skull: condylo-basal length 61.

Type. Adult female. B.M. no. 6.12.4.35. Original number 115. Collected 13th March, 1906, by Mr. R. E. Dent.

This remarkably variable Mongoose forms a parallel to the Alpine Squirrels, which are commonly affected by melanism in a similar way. Possibly something of the same sort occurs in Abyssinia, where the dark "*mutigella*" has been considered to be the same species as the true *M. gracilis*. Elsewhere in Africa forms of the *M. gracilis* group are very constant in colour. We have given figures (Pl. XXI.) of the most extreme forms.

No members of this group, light or dark, have been described from the Lake region of Central Africa.

[Not uncommon on Ruwenzori, but was not seen above 7500 ft. It has the reputation among the natives of being a great chicken-thief. The native name is "Kissere."—R. B. W.]

40. *CROSSARCHUS FASCIATUS MACRURUS* THOS.

♂. 133, 671. Mokia, S.E. Ruwenzori. 3400 ft.

Size larger than in true *C. fasciatus* and tail markedly longer.

Colour quite as in Zululand specimens of *C. fasciatus*, the general tone similarly

deep and rich, and the shoulders equally covered with shaggy hair and suffused with fulvous (not clear grey). Hands and feet nearly wholly deep glossy black.

Dimensions of the type (measured in the flesh):—

Head and body 378 mm.; tail 250; hind foot 70; ear 26.

Skull: condylo-basal length 71; basal length 67; zygomatic breadth 38.5; median length of nasals 12.5; palatal length 38; greatest diameter of p^4 6.

Type. Male, adult but not old. B.M. no. 6.12.4.29. Original number 133. Collected 30th April, 1906, by Mr. R. E. Dent. A second specimen (No. 671) was collected on the same day by Mr. R. B. Woosnam.

Two examples of true *C. fasciatus*, collected in Zululand by Mr. C. H. B. Grant, measure—head and body 333 and 335 mm., tails 207 and 209 mm. respectively. No. 671 of *macrurus* measures—head and body 380, tail 270 mm. There is evidently, therefore, so material a difference both in size and in length of tail between the Ruwenzori form and the South-African that subspecific distinction is necessary, in spite of the close resemblance in other characters.

[Only met with on the plains among the acacia trees around the south end of Ruwenzori. They live in small colonies or family-parties in burrows in the sandy soil. They are partially diurnal. They were rare near Ruwenzori, but a little further east in the district of Ankole they are said to be quite numerous. Native name "Mugere."—R. B. W.]

Family SCIURIDÆ.

41. *SCIURUS STANGERI CENTRICOLA* Thos.

♂. 687. Mpanga Forest, Fort Portal. 5000 ft.

[A few of these Squirrels were seen in the Mpanga Forest, but they were not at all common.—R. B. W.]

42. *SCIURUS RUWENZORII* Schwann. (Plate XXII.)

♂. 231, 247, 248, 272, 626; 42, 53, 246. ♀. 34, 226, 614, 621, 627; 273, 616, 617. Mubuku Valley, E. Ruwenzori. 6500–8500 ft. ✓

As Thomas has pointed out*, this Squirrel is not related to *S. rufobrachiatus*, but is an entirely different species, with two upper premolars, *S. rufobrachiatus* having only one.

[Plentiful on Ruwenzori from 6500 ft. up to 8500 ft., the boundaries of the forest-zone. They have a loud chattering call.—R. B. W.]

43. *SCIURUS RUFOBACHIATUS NYANSÆ* Neum.

♀. 686. Mpanga Forest, Fort Portal. 5000 ft.

* Ann. Mag. N. H. (7) xix. p. 121 (1907).

44. *SCIURUS RUFOBRACHIATUS SEMLIKII* Thos.

♂. 153. Fort Beni, Semliki Valley. 3000 ft.

Most closely allied to *S. r. nyansæ* Neum., with which it agrees in the extent of the rufous on the limbs, but distinguished by the speckling of the back being very much finer and by having the general colour greyer. In *S. r. nyansæ* there is a strong suffusion of buffy or fulvous in the dorsal colour, the rings of the longer hairs and the ends of the wool-hairs being markedly tinged with buffy; in *S. r. semlikii*, on the other hand, the former are almost white and the latter are dull greyish-buff. As a result the general tone of *S. r. semlikii* is a nearly pure dark grey, between grey no. 6 and "smoke-grey" of Ridgway, the middle line of the back only with slight yellowish suffusion.

Dimensions of the type (measured in the flesh):—

Head and body 225 mm.; tail 251; hind foot 49; ear 16.

Hab. Fort Beni, Semliki Valley. 3000 ft.

Type. Adult male. B.M. no. 6.12.4.64. Original number 153. Collected 22nd July, 1906, by Mr. R. E. Dent.

This handsome Squirrel is no doubt nearly allied to *S. r. nyansæ*, but in the very fine speckling of the body and greyer colour shows a relationship to the form found in Gaboon, to which the name of *S. r. aubryi* M.-Edw. is applicable. The latter, however, has not the richly coloured rufous feet characteristic of both the Central African subspecies.

[A few seen in the Congo Forest.—R. B. W.]

45. *FUNISCIURUS BOEHMI EMINI* Stahlm.

♂. 264, 266, 660. Mubuku Valley, E. Ruwenzori. 6000 ft.

♂. 309. Fort Beni, Semliki Valley. 3000 ft.

♂. 685. Mpanga Forest, Fort Portal. 5000 ft.

[Met with throughout the journey, but nowhere in any numbers. They were not seen on Ruwenzori above 7500 ft.—R. B. W.]

46. *FUNISCIURUS ANTONIÆ* Thos. & Wr. (Plate XXIII.)

Ann. Mag. N. H. (7) xix. p. 377 (1907).

♀. 351. Ponthierville, above Stanley Falls, Upper Congo (*Douglas Carruthers*).

A beautiful little Squirrel discovered by Mr. Carruthers after leaving Lake Tanganyika on his return journey.

47. *FUNISCIURUS CARRUTHERSI* Thos. (Plate XXII.)

♂. 263, 265. ♀. 262. Mubuku Valley, E. Ruwenzori. 6500 ft.

A handsome yellowish-green species, with a bluish-grey belly; something like a gigantic example of *F. poensis*.

Size about as in *F. pyrrhopus*. Fur soft and rich; hairs of back about 13–15 mm. in length. General colour above bright yellowish-olivaceous-green, the hairs blackish with rich yellow subterminal bands. Along the sides of the back a suggestion of yellow lateral lines, in the position of those of the *F. pyrrhopus* group, can be made out, but these are very faint and scarcely to be distinguished from the yellow of the flanks. Under surface and inner sides of limbs bluish-grey, the hairs dark slaty with whitish tips. Head like back; eyes rimmed above and below with dull whitish or orange-whitish; ears short, rounded, their inner surface greenish-yellow like the flanks, their outer surface and a small post-auricular patch dull yellowish-white. Upper surface of hands and feet grizzled yellowish. Tail coloured like the body, the hairs black at base and on a broad subterminal ring, the middle ring and the ends greenish-yellow; a pencil of long hairs at the tip of the tail wholly black.

Skull of about the size and general shape of that of *F. erythrogenys* and other members of the *F. pyrrhopus* group. Nasals square, parallel-sided. Postorbital processes further forward on the skull than in *F. erythrogenys*. Teeth apparently of the same general type as in *F. erythrogenys*, but m^3 considerably larger.

Dimensions of the type (measured in the flesh):—

Head and body 198 mm.; tail 192; hind foot 47·5; ear 20.

Skull: greatest length 49; basilar length 38; greatest breadth 28; nasals $13 \times 7\cdot5$; interorbital breadth 12·2; palatilar length 20·2; length of upper tooth-series exclusive of p^3 8·8.

Another specimen (a male) has head and body 204 mm.; tail 205.

Type. Female. B.M. no. 6.7.1.53. Original number 262. Collected 7th February, 1906, by Mr. Douglas Carruthers.

The affinities of this handsome and distinct species are by no means clear. Its size and the indistinct lateral dorsal lines suggest a relationship to the non-rufous members of the *F. pyrrhopus* group, although it has not their characteristically marked tail, and the bluish-grey belly is unlike anything found among them.

[This was a rare Squirrel, and the few specimens obtained were all killed in a particular part of the forest close to a large native clearing.—R. B. W.]

Family GLIRIDÆ.

48. GRAPHICURUS SOLEATUS, sp. n.

♂. 284. ♀. 6. Mubuku Valley, E. Ruwenzori. 5000–6000 ft.

A *Graphiurus* of the *murinus-microtis* group, with small bullæ and dark-coloured white-toed feet.

Size as in *G. microtis*. Fur (6 mm. long on back) thick and close. General colour above probably a brownish-grey normally, but these specimens are in their faded brown

winter coat; below smoke-grey; the line of demarcation much less sharply marked than in *G. microtis*. Hands and feet dark to the base of the toes, which are white.

Skull flatter, brain-case broader, and bullæ markedly smaller than in *G. microtis*.

Dimensions of the type:—

Head and body 79 mm.; tail circ. 90 (broken in the type); hind foot 17·5; ear 16.

Skull: greatest length 27; basilar length 21; greatest breadth 15; brain-case breadth 12·3; interorbital breadth 4·5; length of nasals 11; diastema 6·4; antero-posterior length of bullæ in the plane of the palate 7·6; upper molar series 3·4.

Type. Adult male. B.M. no. 6.12.4.37. Original number 284. Collected by Mr. Douglas Carruthers, 23rd March, 1906.

This little Dormouse is easily separable from *G. microtis*, its nearest neighbour, by its bullæ and the colour of its feet. True's *G. parvus*, from the Tana River, belongs apparently to the group of small forms with white bellies and feet represented by *G. smithii* Thos.

[Rare on Ruwenzori. A few specimens were obtained in the dry wooded ravines at the east end of the range. The natives say that this mouse frequents their grain-stores more than any other species, and also the thatched roofs of their huts, but we did not find this to be the case.—R. B. W.]

49. *GRAPHIURUS MICROTIS* Noack.

♀. 681 and ♀ in spirits. Mokia, S.E. Ruwenzori. 3400 ft.

We have not seen the type of Noack's *G. microtis* from the south end of Lake Tanganyika, but the British Museum possesses specimens from the Nyika plateau which satisfy, so far as we are in a position to judge, all the requirements of Noack's description. The present specimens do not differ in any material degree from these Nyika specimens of *G. microtis*.

The large size of the bullæ as compared with those of *G. soleatus* is most marked, their antero-posterior length, corresponding to that given above for *G. soleatus*, is no less than 9 mm. Although the highest part of the brain-case in *G. microtis* is well in front of a line passing vertically through the auditory meatus, yet the total depth of the skull on this line is almost a millimetre greater than in *G. soleatus* (*i. e.* 10·6 to 9·7 mm.).

Family MURIDÆ.

50. *TATERA RUWENZORII*, sp. n.

♀. 302, 308, 678. Mokia, S.E. Ruwenzori. 3400 ft.

A *Tatera* about the size of and outwardly resembling *T. liodon*, but with a proportionally longer tail and with shorter anterior and longer posterior palatal foramina.

Fur fairly long (18–22 mm. on back) and soft. General ground-colour above the usual fawn, pure on the flanks, much mixed with black on the back; individual hairs dark slate-colour, with a subterminal buff ring (2 mm.) and a black tip (2 mm.) on the back and a buff tip (4 mm.) on the flanks; below pure white, the hairs white to their bases. Hands white; feet buffy, with white toes. Tail very dark brown (almost black) above, fawn below.

Skull about the size of that of *T. liodon*, interorbital region and brain-case markedly broader, anterior palatal foramina shorter, posterior longer than in that species.

Dimensions of type taken in the flesh:—

Head and body 160 mm.; tail 166; hind foot 34; ear 22.

Skull: greatest length 42·5; basilar length 34; zygomatic breadth 22·3; interorbital breadth 7·5; brain-case breadth 17·2; anterior palatal foramina 7·5 (8·3 in *liodon*); posterior palatal foramina 3 (a mere point in *T. liodon*); diastema 11·9; upper molar series 7.

Type. Adult female. B.M. no. 6.12.4.41. Original number 678. Collected 20th May, 1906, by Mr. R. B. Woosnam.

The long posterior palatal foramina in this species separate it sharply from *T. liodon* and *T. valida*, the two species hitherto recognised as occupying the equatorial belt across Africa.

[These Rats were very numerous on the plains around the south end of Ruwenzori, but were almost impossible to catch. We failed to locate them in any holes, and they appeared to feed only upon young grass-stems, of which they cut up great quantities into short lengths of from 2 to 4 inches long, but they refused all baits. They are nocturnal.—R. B. W.]

51. OTOMYS DARTMOUTH Thos.

♂. 81, 82, 254, 653. ♀. 642, 655, 656. Mubuku Valley, E. Ruwenzori. 12,500 ft. ("seen up to 13,000 ft.).

Lower incisors double-grooved. M^3 with only six laminae.

Size rather larger than in *O. jacksoni*. Fur very fine, long and woolly; ordinary hairs of back about 17 mm. in length. General colour above finely grizzled "mummy-brown," not so coarsely marbled as in *O. jacksoni*. Under surface drab-brown, the ends of the hairs pale clay-colour. Head and ears of the prevailing body-colour. Upper surface of hands and feet pale buffy. Tail black along its upper surface, dull buffy on the sides and below.

Skull larger than in *O. jacksoni*, its profile convex above the orbits.

Upper incisors with a deep median and a fine internal groove. Lower incisors with two well-marked subequal grooves, as in *O. jacksoni* and *typus*. Laminar formula of molars $\begin{smallmatrix} 3-2-6 \\ 4-2-2 \end{smallmatrix}$.

Dimensions of the type (measured in the flesh):—

Head and body 150 mm.; tail 93; hind foot 26·5; ear 25.

Skull: greatest length 37·5; basilar length 30·3; zygomatic breadth 19·5; nasals 16·5×6·7; interorbital breadth 4·2; palatilar length 17; palatal foramina 7; length of upper molar series (grinding-surface) 7·3.

Type. Male. B.M. no. 6.7.1.54. Original number 653. Collected 18th February, 1906, by Mr. R. B. Woosnam.

This animal is related to the corresponding mountain-form from Mt. Elgon, *Otomys jacksoni*, from 13,200 ft., but differs by its larger size, more uniform coloration, and the possession of only six laminae on the last upper molar.

[It is impossible to say which of the two Swamp-Rats, *O. dartmouthi* or *Dasymys montanus*, is the most numerous, as they frequent the same ground and have exactly similar habits (see under the latter species, p. 514).—R. B. W.]

52. OTOMYS DENTI Thos.

♀. 14, 56, 645. ♂ in spirits. Mubuku Valley, E. Ruwenzori. 6000–10,000 ft.

Incisive grooves as in *O. irroratus*, but m^3 with five laminae only. Colour very dark.

Size rather smaller than in *O. irroratus*. Fur long and fine; ordinary hairs of back about 20 mm. in length. General colour dark blackish-brown (darker than "bistre") with a coppery tinge, the rump almost black, the light rings on the hairs dark tawny. Under surface and inner aspect of limbs slaty black, a few only of the belly-hairs tipped with dull buffy. Upper surface of hands and feet uniformly brownish-black. Tail black throughout, above and below.

Skull smaller than that of *O. irroratus*, more flattened above, its profile not so convex above the orbits, the height from tooth-row to supraorbital ridge markedly less.

Incisive grooves as in *O. irroratus*. Molar laminae $\frac{3-2-5}{4-2-2}$.

Dimensions of the type (measured in the flesh):—

Head and body 157 mm.; tail 89; hind foot 27; ear 21.

Skull: greatest length 36·6; basilar length 30·3; zygomatic breadth 18·6; nasals 14·7×6·8; interorbital breadth 4·5; height from alveolus of m^2 to supraorbital ridge 10·8; palatilar length 17; palatal foramina 7·2; upper molar series (grinding-surface) 7.

Type. Female. B.M. no. 6.7.1.69. Original number 56. Collected 27th January, 1906, by Mr. R. E. Dent.

This striking Swamp-Rat is readily distinguishable by its dark coppery colour, flat skull, and the presence of only five laminae on the last upper molar.

[Rather an uncommon species, obtained at 6000 and 10,000 ft. They inhabit the swampy ground and banks of streams.—R. B. W.]

53. *DEOMYS FERRUGINEUS* Thos.

1 in spirits. Between Mawambi and Avakubi, E. Congo Forest.

The genus *Deomys* has hitherto been known only from the West Coast, whence Mr. G. L. Bates has sent a number of specimens to the British Museum.

54. *DENDROMUS INSIGNIS* Thos.

♀ skinned from spirits. Mubuku Valley, E. Ruwenzori. 10,000 ft.

55. *MUS RATTUS* L.

♂. 146, 307. Mokia, S.E. Ruwenzori. 3400 ft.

♂. 155, 156. ♀. 157. Fort Beni, Semliki Valley. 3000 ft.

[Not obtained on Ruwenzori. A few were found on the plains around the south end of the range and again at Fort Beni on the edge of the Congo Forest.—R. B. W.]

56. *MUS UGANDÆ* De Winton.

♂. 45, 46, 274, 401, 625; 137, 147, 242, 677, 680. ♀. 40, 41, 51, 54, 87, 88, 605; 148, 154, 293, 294, 296, 297, 674. Mubuku Valley, E. Ruwenzori. 6000 ft.

♂. 140, 290, 676. ♀. 291. Mokia, S.E. Ruwenzori. 3400 ft.

♀ in spirits. East Ruwenzori.

[Extremely common everywhere, especially near native huts and cultivations. They were not caught on Ruwenzori above 7000 ft.—R. B. W.]

57. *MUS* sp. (multimammate).

2 ♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

58. *MUS JACKSONI* MONTIS, subsp. n.

♂. 4, 12, 18, 21, 24, 609, 620. ♀. 3, 13, 23, 25, 39, 110. Mubuku Valley, E. Ruwenzori. 6000 ft.

♀ in spirits. Mubuku Valley, E. Ruwenzori. 7000 ft.

A long-tailed Rat representing *M. jacksoni* De Wint., but rather larger and with larger stouter teeth.

Fur short (10–12 mm. long on back) and soft. General colour above “bistre,” more or less tinged with “broccoli-brown,” below greyish-white; individual hairs blackish-slate, with brown tips on the hock and pure white on the lower surface. Hands and feet pinkish-drab. Tail uniform in colour, almost naked; rings about 15 in 10 mm.

Skull of the usual type. Teeth broader and longer than in *M. jacksoni*, palatal foramina long.

Dimensions of type (measured in the flesh):—

Head and body 111 mm.; tail 156; hind foot 25·5; ear 19.

Skull: greatest length 33; basilar length 26·5; zygomatic breadth 16; brain-case breadth 13·5; diastema 9; palatal foramina 7·6; upper molar series, length 5·3, breadth 1·7.

Type. Old male. B.M. no. 6.7.1.97. Original number 18. Collected 2nd January, 1906, by Mr. R. E. Dent.

A series of 13 specimens, including males and females, examined. The type of *M. jacksoni* is unfortunately a quite young animal, but, so far as we can judge, it is a somewhat smaller animal even when full-grown, otherwise externally it closely resembles the present species. On comparing the skulls, however, the size of the teeth serves to separate them at once, the measurements in *M. jacksoni* being—length of upper molar series 4·6, breadth 1·4.

[Extremely common on Ruwenzori everywhere up to 8000 ft. They were most numerous around the native huts.—R. B. W.]

59. *MUS DENNIE* THOS.

♂. 36, 77, 223, 228, 235, 239, 253, 640. ♀. 242, 258, 639; 123, 126. Mubuku Valley, E. Ruwenzori. 6000–12,000 ft.

♀ in spirits. Mubuku Valley, E. Ruwenzori. 7000 ft.

A small long-tailed species allied to *M. allenii*. Mammæ 2—2=8.

Size about as in *M. allenii* and *M. carillus*. Fur soft and rather woolly; hairs of back about 9–10 mm. in length. General colour not unlike that of *M. carillus*, soft buffy-fawn, varying a good deal in the richness of the tone. Sides clearer and more buffy. Under surface well defined whitish, sometimes tinged with buffy. Head greyer than back; lower part of sides of muzzle white; area around eyes black. Ears large, naked, dark brown throughout. Upper surface of hands and feet thinly haired, dull whitish. Tail much longer than head and body, fairly well haired terminally, greyish-brown throughout.

Skull of the same delicate shape as in *M. allenii* and *M. carillus*, and the zygomatic plate similarly little projected forward. Supraorbital edges sharply square, but not beaded. Palatal foramina much longer than in the two western species.

Dimensions of the type (measured in the skin):—

Head and body 96 mm.; tail 154; hind foot 21; ear 21.

Skull: greatest length 27; basilar length 22·5; greatest breadth 13·5; nasals 9·5; interorbital breadth 4·1; breadth of brain-case 12·2; palatal length 12; diastema 8; palatal foramina 6·4×2·3; length of upper molar series 4.

Type. Male. B.M. no. 6.7.1.112. Original number 235. (7000 ft.) Collected 15th January, 1906, by Mr. Douglas Carruthers.

This pretty Mouse is no doubt allied to *Mus allenii*, with which it shares the general

proportions, shape of skull, and number of mammae; but it differs by its softer, more buffy fur and longer palatine foramina. In *Mus carillus*, otherwise allied, there are only 1—2=6 mammae.

[This was an extremely common Mouse on Ruwenzori and was obtained as high as 12,500 ft. At this altitude it was found only in the dry caves and rock-shelters.—R. B. W.]

60. *MUS UNIVITTATUS* Peters.

♂ . 182. ♀ . 183. North Ruwenzori.

♂ . 178. Mpanga Forest, Fort Portal. 5000 ft.

♀ . 185. Eturi Forest. 2500 ft.

2 ♂, 2 ♀ in spirits. Between Mawambi and Ayakubi, E. Congo Forest.

[These Mice were met with only in forest-country and did not appear to be uncommon.—R. B. W.]

61. *MUS UNIVITTATUS LUNARIS* Thos.

♀ . 217, 240, Mubuku Valley, E. Ruwenzori. 6000–8000 ft.

General characters of the typical western *M. univittatus*, but size smaller and colour more olivaceous, not turning rufous on the rump, which is blackish-olivaceous. Belly-hairs greyish tipped with buffy; a line down outer edge of thighs also buffy. Dorsal streak not sharply defined and not extending on to neck and head. Upper surface of hands blackish-brown, of feet rufous-brown. Tail practically naked, black above, rather lighter below.

Skull similar to that of true *M. univittatus*, but smaller and lighter throughout. Molars decidedly narrower.

Dimensions of the type (measured in flesh):—

Head and body 108 mm.; tail 115; hind foot 25; ear 17.

Skull: greatest length 32; basilar length 24; greatest breadth 15·3; nasals 13; interorbital breadth 5·2; breadth of brain-case 14; palatilar length 13·2; palatal foramina 6; length of upper molar series 5·1.

Type. Old female. B.M. no. 6.7.1.137. Original number 217. Collected 2nd January, 1906, by Mr. Douglas Carruthers.

[This was a rare species on Ruwenzori and only two examples were obtained during many months' continuous trapping; these were caught in the forest-zone.—R. B. W.]

62. *MUS ALLENI* Waterh.

♀ in spirits (skinned out). Between Mawambi and Avakubi, E. Congo Forest.

♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

63. LEGGADA BUFO Thos. (Plate XXIII.)

♂. 213, 227. ♀. 17, 93, 206, 214, 215. Mubuku Valley, E. Ruwenzori. 6000–6500 ft.

1 in spirits. Butagu Valley, W. Ruwenzori. 7000 ft.

A large dark species with a rich buffy belly.

Size rather less than in *Mus musculus*. Fur close and crisp, about 5·5 mm. in length on the back, profusely mixed with fine spines. General colour above dark coppery brown (nearest to “bistre”), more blackish on the rump; the light rings on the hairs dark buffy. Under surface strongly contrasted rich buffy-ochraceous, the hidden bases of the hairs slaty-grey. Head rather darker than back. Ears naked, uniformly blackish. Outer side of limbs brown like sides, inner sides buffy like belly; upper surface of hands and feet brown, with a tinge of buffy. Tail finely scaled (20 rings to the centimetre), practically naked, blackish throughout, or rather lighter below proximally.

Skull stoutly built, with broad, squarely edged but not ridged, interorbital region. Palatal foramina long, extending nearly to the level of the middle of m^1 . First upper molar with its anterior lobe less developed than in the smaller forms.

Dimensions of the type (measured in the flesh):—

Head and body 70 mm.; tail 68; hind foot 16; ear 13.

Skull: greatest length 22; basilar length 17; greatest breadth 11; interorbital breadth 4; palatilar length 9·6; palatal foramina 5·1; length of upper molar series 3·4.

Type. Old female. B.M. no. 6.7.1.116. Original number 215. Collected 2nd January, 1906, by Mr. Douglas Carruthers.

This species is related to *L. musculoides* Temm., but may be readily recognized by its rich buffy under surface.

[A fairly common Mouse on Ruwenzori, but not obtained much above the lower limit of the forest-zone at 6500 ft.—R. B. W.]

64. LEGGADA ^{*setulosa*} FORS, sp. n.

♂. 159. Butagu Valley, W. Ruwenzori. 7000 ft.

♂. 181. North Ruwenzori. 7500 ft.

A *Leggada* about the size of *L. setulosa* Peters, with slaty bases to the hairs of the underside.

Size about as in *L. setulosa*. Fur longer than in that species (9–10 mm. on the back against 7·8 in *L. setulosa*). Colour above exactly as in *L. setulosa*, *i. e.* hairs dark slate with buff tips mixed with a certain proportion of all black ones.

Below bases of hairs pale slate, tips white, giving a general grey appearance contrasting strongly with the pure white belly of *L. setulosa*. Hands and feet dark (white in *L. setulosa*).

Skull and teeth resembling those of *L. setulosa*, but larger.

Dimensions of type:—

Head and body 66 mm.; tail 55; hind foot 15; ear 12.

Skull: greatest length 21; basilar length 18·2; zygomatic breadth 10·5; brain-case breadth 9·9; diastema 5·4; palatal foramina 5; upper molar series (alveolar length) 4.

Type. Adult male. B.M. no. 7.4.6.23. Original number 159. Collected 1st August, 1906, by Mr. R. E. Dent.

In the British Museum there is no example from Guinea of the genus *Leggada* which efficiently represents Temminck's *L. musculoides*. A series collected by Mr. Bates in Cameroon are topotypes of Peters' *Mus setulosus*, and, judging from the description, they do not differ materially from *L. musculoides*. From this western form the present species may be separated at once by its greyish belly and rather larger size. From *L. bufo*, which resembles it in having slaty bases to the hairs of the underside, it is at once distinguishable by its smaller size and the absence of buffy colouring on the belly.

65. LEGGADA GRATA, sp. n.

♂. 63, 75, 216, 222. ♀. 5, 35. Mubuku Valley, E. Ruwenzori. 6000 ft.

♀. 349. Upper Congo. 2000 ft.

♀. 313 (1 in spirits). Mufumbiro volcanoes. 5000 ft. (*Douglas Carruthers*.)

A small *Leggada* intermediate between *L. tenella* and *L. musculoides*.

Fur fine and short (7–8 mm. on the back). General colour above “bistre,” below white; individual hairs of the back at their bases dark brownish slate, continued to the tip in some, while others are tipped with buffy; the basal colour paling gradually towards the flanks and buffy-tipped hairs becoming more numerous until at the junction with the white belly a bright buffy line is formed; hairs of belly with dull white bases which seem almost pale slate in some lights. A bright buffy spot on the cheek of the same colour as the flank-stripe. Hands and feet buffy white.

Skull small, but broad and deep. The characteristic ridge on the anterior molar clearly marked.

Dimensions of the type (measured in the flesh):—

Head and body 58 mm.; tail 55; hind foot 14; ear 9·5.

Skull: greatest length 18; basilar length 14; zygomatic breadth 9·6; brain-case breadth 8·7; nasals 7·5; diastema 4·8; upper molar series 3·3.

Type. Old female. B.M. no. 6.7.1.55. Original number 35. Collected 14th January, 1906, by Mr. R. E. Dent.

Sir A. Smith based his "*minutoides*" on specimens from "near Cape Town." The skull of one of his typical specimens, as well as those of more recently received examples from the same region, shows that *L. minutoides* is a larger form, so that *L. minimus* Peters being preoccupied, there is no name available for the small, or, more properly (as *L. tenella* is still smaller), for the medium form represented by the present species.

66. *THAMNOMYS VENUSTUS* Thos.

♀. 615. Mubuku Valley, E. Ruwenzori. 8000 ft.

Allied to *T. rutilans*, Peters, but larger and with much longer fur.

Fur of back about 15 mm. in length. General colour above dark rufous (in spirits), a brighter line along the sides; belly white, with a faint buffy suffusion, the basal halves of the hairs slaty. Ears dull greyish. Upper surface of feet buff, becoming whiter on the toes. Tail long, pencilled terminally, uniformly dark brown, as in *T. rutilans*. Mammæ 0—2 = 4.

Skull decidedly larger than in *T. rutilans*; muzzle long, parallel-sided; interorbital region narrow, the edges not so widely expanded as in *T. rutilans*; palatine foramina long, not expanded mesially, reaching back to the level of the front of *m*; bullæ rather larger than in *T. rutilans*. Molars large, heavy, the series markedly larger than in *T. rutilans*.

Dimensions of the type (measured on the spirit-specimen):—

Head and body 125 mm.; tail 181; hind foot 25; ear 18.

Skull: greatest length 34·5; basilar length 28; greatest breadth 17·2; nasals 12·5; interorbital breadth 4·9; breadth of brain-case 14·3; palatilar length 15; diastema 9·4; palatal foramina 8·2; length of upper molar series 6·1.

Type. Adult female. B.M. no. 6.12.4.106. Original number 615. Collected by Mr. R. B. Woosnam.

Unfortunately only one specimen of this fine species was obtained by the Expedition, and that was preserved in spirits. However, its longer skull, larger teeth, longer fur, and the slaty tint of its belly will readily distinguish it from *T. rutilans*, to which alone it is nearly allied.

[A single specimen of this species was obtained in the upper part of the forest-zone. It was shot as it left its hole among the roots of a tree and had one of its young hanging to a teat. This was the only example met with, although many traps were put down in the vicinity.—R. B. W.]

67. *THAMNOMYS DRYAS* THOS.

♂. 234; 104, 668. ♀. 19, 20, 37, 72, 207. Mubuku Valley, E. Ruwenzori. 6000 ft.

♀ in spirits.

A member of the *T. dolichurus* group, but with the mammae only 0—2=4.

Quite similar to the more rufous forms of *T. dolichurus*, *e. g.* those from Nyasa and East Africa. General colour tawny, greyer on the head, richer on the rump, sides paler, a well-marked buffy or ochraceous line edging the belly, which is white, sometimes tinged with buffy, the hairs not slaty at the base. Ears with proectote tawny brown or blackish; metentote rich buffy; a pale buffy spot behind their posterior base. Upper surface of hands and feet pale buffy. Tail long, pencilled, uniformly dark brown. Mammae 0—2=4.

Skull lightly built. Palatal foramina reaching just to the level of the front of *m*¹. Bullae small. Molars light and delicate.

Dimensions of the type (measured in the flesh):—

Head and body 118 mm.; tail 185; hind foot 24·5; ear 19.

Skull: greatest length 31·3; basilar length 24·5; zygomatic breadth 15·3; nasals 11·5; interorbital breadth 4·7; breadth of brain-case 13·6; palatal foramina 7·2; length of upper molar series 4·3.

Type. Adult female. B.M. no. 6.7.1.136. Original number 207. Collected 30th December, 1905, by Mr. Douglas Carruthers.

The presence of only four mammae in this mouse is a very curious fact, as there are six in all the other members of the *T. dolichurus* group, even in those from comparatively adjacent localities. Specimens from Shoa (*Zaphiro*), Mt. Elgon (*Jackson*), Nyasa (*Johnston*), Angola (*Ansorge*), and South Africa all possess the larger number.

[A few of these Mice were trapped in the grass-country below the forest. A nest built in the grass some way off the ground was thought to belong to this species, but we failed to obtain the actual owner.—R. B. W.]

68. *CENOMYS BACCHANTE* EDITUS, subsp. n.

♂. 70, 202, 222, 230. ♀. 15, 28, 29, 31, 32, 91, 203. Mubuku Valley, E. Ruwenzori. 6000 ft.

♀ in spirits. Mubuku Valley, E. Ruwenzori. 4000 ft.

An *Cenomys* of the size and general colouring of *Æ. bacchante unyori*.

Fur soft and fairly long (17 mm. on the back). General colour above near "clay-colour," individual hairs dark slate-colour, tipped on the flanks with cream-buff, and on the back with bright "ochraceous," the coloured tips longer on the rump;

a considerable proportion of longer hairs (25–30 mm.) black with buff tips. Hands and feet ochraceous buff; tail sparsely clothed with short adpressed hairs; dark above, pale below.

Skull as in *Æ. b. unyori*, but interorbital area widening evenly backwards, not parallel-sided; anterior margin of anteorbital plate concave as in *Æ. bacchante*.

Dimensions of the type (measured in the flesh):—

Head and body 150 mm.; tail 180; hind foot 30; ear 20.

Skull: greatest length 38; basilar length 31; zygomatic breadth 17·5; diastema 10·5; upper molar series 6·9.

Type. Adult male. B.M. no. 6.7.1.139. Original number 70. Collected 2nd February, 1906, by Mr. R. E. Dent.

[Numerous on Ruwenzori up to the lower limit of the forest-zone at 6500 ft. They were also plentiful among the native clearings in the Congo Forest, feeding on the rice- and millet-crops, where the natives catch and eat them.—R. B. W.]

Hitherto all forms in the genus *Enomys* (except the two small species *Æ. dembeensis* and *Æ. harringtoni*) from N.E. Africa have been classed as subspecies of *Æ. hypoxanthus*. After examining the considerable material now available we are of opinion that, at least, the West Coast forms (*Æ. hypoxanthus* and *Æ. anchietæ*) with their larger (especially broader) teeth should be separated from the smaller-toothed Eastern ones (*Æ. bacchante*, *Æ. unyori*, and *Æ. editus*).

The following is a comparative table of the principal measurements (in mm.) of the five forms mentioned:—

	<i>Æ. hypoxanthus.</i>	<i>Æ. h. anchietæ.</i>	<i>Æ. bacchante.</i>	<i>Æ. b. unyori.</i>	<i>Æ. b. editus.</i>
Head and body	180	171	159	155	150
Tail	180	194	170	185	180
Hind foot	32	32	30	31	30
Ear	22	19	21	20	20
Skull: greatest length . . .	41·5	40	38	37	38
„ basilar length . . .	34	32·5	31·5	30	31
„ greatest breadth . . .	19	18	18·7	?	17·5
„ diastema	11·5	10·8	10·5	10·3	10·5
„ incisive foramina . . .	8·6	7·3	7·8	7·1	7·2
„ upper molar series . . .	7·3	7·5	6·7	6·9	6·9

The known forms of the *Enomys hypoxanthus* group may be arranged in a key, as follows:—

- A. Rather larger. Head and body 170–180 mm.; hind foot about 32; greatest length of skull 40. Upper molars larger, markedly broader.

(W. Africa.)

- a₁. General colour darker, suffusion chestnut. Tail equal in length to

head and body. (Gaboön &c.) *hypoxanthus* Puch.

- b*₁. General colour lighter, suffusion ochraceous. Tail longer than head and body. (Angola). *h. anchieta* Boc.
- B. Rather smaller. Head and body 150–160 mm.; hind foot 30–31; greatest length of skull about 38. Upper molars smaller, narrower. (Congo and East Africa.)
- a*₁. Darker. Belly pure white, sharply defined. Skull stouter; bullæ larger; anterior margin of anteorbital plate concave, sloping forward from base. (British East Africa). *bacchante* Thos.
- b*₁. Paler. Belly edged laterally with buffy. Skull slighter; bullæ smaller; anterior margin of anteorbital plate straight, vertical. (Unyoro). *b. unyori* Thos.
- c*₁. Paler. Belly edged laterally with buffy. Skull stouter; bullæ smaller; anterior margin of anteorbital plate concave, sloping forward from base. (Ruwenzori). *b. editus*, subsp. n.

69. *CENOMYS BACCHANTE* UNYORI Thos.

♂. 168. 30 miles N.W. of Fort Beni, Semliki Valley. 3000 ft.

♀. 337. Upper Congo.

70. *CRICETOMYS GAMBIANUS* Waterh.

♂. 74, 612, 666. ♀. 76, 603, 604, 613. Mubuku Valley, E. Ruwenzori. 6000–6500 ft.

[These large Rats were not uncommon on Ruwenzori up to 7000 ft.; they appeared to inhabit chiefly the more open and cultivated lands below the forest-line and, according to the natives, did a good deal of damage among the bean-crops. They live in burrows in the ground and seem to be entirely nocturnal. The natives eat their flesh and make the skins into small bags or pouches for carrying pipes and tobacco, &c. Native name “Kassumba.”—R. B. W.]

71. *MALACOMYS CENTRALIS* De Wint.

♂. 174. ♀. 175. Mpanga Forest, Fort Portal.

3 in spirits. Mpanga Forest.

These specimens are immature, but allowing for that they seem properly referable to *M. centralis*, described by Mr. De Winton from Mombutu.

[This species appears to inhabit only the damp and dark forests; it was obtained in the Mpanga Forest, and was not uncommon.—R. B. W.]

72. *LOPHUROMYS AQUILUS* True.

♂. 43, 55, 57, 61, 218, 629. ♀. 219, 229 (and 1 in spirits). Mubuku Valley, E. Ruwenzori. 6000 ft.

♂. 259, 641. ♀. 646. Mubuku Valley, E. Ruwenzori. 10,000–12,000 ft.

1 in spirits. Between Masambi and Avakubi, Eturi Forest.

2 in spirits. Mpanga Forest, Fort Portal.

The genus *Lophuromys* is found throughout the Ethiopian Region north of the Zambesi River. The unicolorous Western species (*L. sikapusi* Temm.) and the coarsely speckled Abyssinian animal (*L. flavopunctatus* Thos.) are distinguishable at sight from the finely speckled Eastern and Central African forms, the oldest name for which is *Mus aquilus* True.

Possibly owing to the tenderness of the skin, mentioned below by Mr. Woosnam, the material in this group available for comparison is insufficient to justify us in separating this Ruwenzori series from true *L. aquilus*, which was found on Kilimanjaro.

[Plentiful on Ruwenzori from the plains up to 12,500 ft., and obtained also in the Toro district and Congo Forest. They were numerous in some very swampy ground at 10,000 ft. and also at 12,000 ft., but they frequented the drier forest as well. The skin of this species is extraordinarily tender, just like wet tissue-paper.—R. B. W.]

73. *LOPHUROMYS LATICEPS* Thos. & Wr.

♀. 318. Lake Kivu. 4900 ft. (*Douglas Carruthers.*)

74. *LOPHUROMYS WOOSNAMI* Thos. (Plate XXIV.)

♂. 232, 233, 608. ♀. 20, 47, 62, 224, 238, 241. Mubuku Valley, E. Ruwenzori. 6000 ft.

♂ ♀ in spirits. Mubuku Valley, E. Ruwenzori. 7000 ft.

♂. 179. ♀. 180. North Ruwenzori.

An olive-grey species with large ears and long tail.

About the same size as *L. aquilus*. Fur straight; hairs of back about 10–11 mm. in length. General colour above between “olive” and “bistre,” without the warmer rufous tone generally present in the East-African forms; the bases of the hairs are, however, of a rufous-brown colour. Mixed with the ordinary hairs of the back there are a variable number of buffy-white hairs, which produce a speckling somewhat similar to that of the grysbuck (*Nototragus melanotis*), but are almost absent in some specimens. Sides rather paler than back. Colour of under surface not sharply defined laterally, very variable, ranging from near wood-brown to tawny clay-colour; the throat rather whiter. Head like back; area round eyes nearly black. Ears very large, finely haired, black, with whitish edges. Upper surface of hands and feet pale

brownish-white. Tail long, slender, almost naked, markedly less hairy than in the other species; blackish above, whitish flesh-colour below.

Skull with a long slender muzzle; interorbital region broad, edged with well-defined ridges, but without postorbital projections; outer wall of anteorbital foramen reduced to a narrow bar less than half the breadth of the corresponding part in *L. aquilus* and *L. flavopunctatus*; it is, however, similarly narrow in the West-African *L. sikapusi*.

Incisors more as in *Mus* than in other *Lophuromys*, their anterior surface not curved round in the way generally characteristic of the present genus. Molars very broad, with well-defined cusps; their pattern as usual.

Dimensions of the type (measured in the flesh):—

Head and body 118 mm.; tail 111; hind foot 22·5; ear 23.

Skull: greatest length 30·5; basilar length 24; greatest breadth 14·3; nasals $14 \times 3\cdot2$; interorbital breadth 6·7; diastema 8; palatilar length 12·4; palatine foramina 6·5; length of upper molar series 4·8.

Type. Adult male. B.M. no. 6.7.1.170. Original number 608. Collected 31st December, 1905, by Mr. R. B. Woosnam.

This striking species is widely different from any of the Central- and East-African forms of *Lophuromys*, and might almost be considered generically distinct were it not that the West-African *L. sikapusi* also possesses some of its characters. Its large ears, long tail, and peculiar olive-coloured white-speckled fur readily distinguish the species from all its allies.

[Not uncommon on Ruwenzori, but only obtained up to an altitude of 8000 ft. They inhabited both the forest and grass-country. Both this species and *L. aquilus* have a curious odour, quite unlike that of other mice.—R. B. W.]

75. *DASYMYS MONTANUS* THOS.

♀. 79, 654. ♀. 80, 255. Mubuku Valley, E. Ruwenzori. 12,500 ft.

♀ in spirits. Mubuku Valley, E. Ruwenzori. 12,500 ft.

A very long-haired species, with short tail.

Size medium. Fur very long and fine; the ordinary hairs of the back about 15 mm. in length. General colour above uniformly finely speckled mummy-brown, the light rings on the hairs near clay-colour. A number of the longer hairs with a greenish iridescence. Sides but little paler than back. Under surface bluish-grey, the slaty bases of the hairs little hidden by the dull pale drab tips. Ears large, black, contrasting with the general brown colour. Upper surface of hands and feet pale brown, the digits lighter. Tail practically naked, the scales quite unhidden, blackish throughout.

Skull shorter and broader and the zygomata more squarely expanded anteriorly than in other species.

Dimensions of the type (measured in the flesh):—

Head and body 137 mm.; tail 105; hind foot 27; ear 19.

Skull: length of upper molar series 7·3.

Another skull measures:—Greatest length 35; basilar length 30·6; greatest breadth 21·2; nasals 12·3×4·3; palatilar length 17·8; length of upper molar series 7·1.

Type. Female. B.M. no. 6.7.1.79. Original number 255. Collected 30th January, 1906, by Mr. Douglas Carruthers.

D. montanus is readily distinguishable from all other species by its long fur and short tail.

[Vast numbers of Swamp-Rats, apparently of two species only, *D. montanus* and *Otomys dartmouthi*, inhabited the boggy moss-covered ground between 12,000 and 14,000 ft., and their runs were to be seen in all directions in the deep moss. They were feeding upon the blossoms of the everlasting flowers and young rushes, and apparently on moss as well. In spite of their numbers they were extremely difficult to catch, and refused all such baits as beans, potatoes, banana, bread, &c.; one or two came to a bait of oatmeal, but they were more often caught by having run over the bait and so sprung the trap. They are probably diurnal, for several were caught in the traps during the daytime.—R. B. W.]

76. *DASYMYS MEDIUS* THOS.

♂. 16, 27, 211, 212; 94, 131. ♀. 38, 67, 209; 102, 105, 107. Mubuku Valley, E. Ruwenzori. 6000–9000 ft.

♂, 2 ♀ in spirits. Mubuku Valley, E. Ruwenzori, 6000–9000 ft.

A grey species allied to *D. bentleyæ*.

Size medium, rather larger than in *D. bentleyæ*. Fur comparatively coarse and shaggy; hairs of back about 12–13 mm. in length. General colour above greyish-“hair-brown,” greyer on the head and fore-back, warmer and browner on the rump; darkened throughout by the black ends to the longer hairs. Sides greyer, passing gradually into the grey of the under surface, where the tips of the hairs are dull greyish-white, their slaty bases showing through. Ears well haired, greyish-brown, not markedly darker than the general tone. Upper surface of hands and feet pale brown. Tail rather long, thinly clothed with fine hairs, not hiding the scales, brown above and below.

Skull larger than that of *D. bentleyæ* and markedly higher in the brain-case. Inter-orbital region parallel-sided, evenly narrow throughout, not broadening posteriorly as in *D. bentleyæ*. Bullæ decidedly larger than in that species.

Dimensions of the type (measured in the flesh):—

Head and body 143 mm.; tail 128; hind foot 28·5; ear 19.

Skull: greatest length 34·3; basilar length 30; greatest breadth 18·5; length of

nasals 12; diastema 10·3; palatilar length 17·5; palatal foramina 7·6; length of upper molar series 7.

Type. Female. B.M. no. 6.7.1.75. Original number 38. Collected 16th January, 1906, by Mr. R. E. Dent.

No species of *Dasymys* have been hitherto described from this part of Africa, the nearest being the Lower Congo *D. bentleyæ*, from which the present animal differs by the characters above mentioned. From the *D. montanus* of the higher altitudes of Ruwenzori it is, of course, at once distinguishable by its shorter coarser fur and much longer tail.

[Numerous on Ruwenzori from 6000 ft. up to 9000 ft. They inhabited chiefly the bottoms of the valleys near streams, but were also caught occasionally on the drier ridges.—R. B. W.]

77. *ARVICANTHIS MASSAICUS* Pagenst.

♂. 26, 60, 64, 85, 208, 210, 631. ♀. 8, 58, 281. Mubuku Valley, E. Ruwenzori. 6000–6500 ft.

♂. 298. Mokia, S.E. Ruwenzori. 3400 ft.

♂. 683. Fort Beni, Semliki Valley.

3 in spirits. Mpanga Forest, Fort Portal.

♀. 317. Lake Kivu. 4900 ft. (*Douglas Carruthers.*)

[Very numerous both on Ruwenzori up to 7000 ft. and on the plains below the mountains. This species is apparently both diurnal and nocturnal. Native name, “Naruberi.”—R. B. W.]

78. *ARVICANTHIS MACCULUS*, sp. n. (Plate XXIV.)

♂. 304. ♀. 303, 679. Mokia, S.E. Ruwenzori. 3400 ft.

An *Arvicanthis* of the *A. pulchellus* group, but smaller than that species.

Colouring very much as in *A. pulchellus* or *A. massaicus*, but the pale spots smaller; the yellow marking on the face, so noticeable in *A. massaicus*, almost entirely wanting.

Dimensions of the type:—

Head and body 105 mm.; tail 111; hind foot 22; ear 17.

Skull: greatest length 28; basilar length 22·3; greatest breadth 13·4; brain-case breadth 11·6; interorbital breadth 4·9; diastema 7; length of upper molar series 4·8.

Type. Adult female. B.M. no. 6.12.4.57. Original number 679. Collected by Mr. R. B. Woosnam.

The male is rather younger than the type, and the other female is still younger, but allowing for this they correspond in all essential characters with the type. This is the smallest form of spotted (as distinguished from the striped, *A. barbarus* group) *Arvicanthis* yet described.

79. *ARVICANTHIS ABYSSINICUS* Rüpp.

♂. 83, 84. ♀. 59, 662. Mubuku Valley, E. Ruwenzori. 6990 ft.

♂. 139, 299. ♀. 138, 675. Mokia, S.E. Ruwenzori. 3400 ft.

[Plentiful on Ruwenzori up to the lower edge of the forest-zone at 6500 ft., and occasionally seen among the dry acacia-country on the plains around the south end of the range. This species is quite diurnal, and may be seen in the bright sunlight feeding upon the millet put out to dry in front of the native huts.—R. B. W.]

Family OCTODONTIDÆ.

80. *THRYONOMYS HARRISONI* Thos. & Wr.

♂. 310. Fort Beni, Semiliki Valley. 3000 ft.

This species was based on a specimen obtained by Col. Harrison from the Lado District; another was obtained by the Alexander-Gosling Expedition on the Welle River.

T. swinderianus occupies, practically unchanged, the whole of the Ethiopian area; while, so far as we yet know, the group made up of *T. gregorianus*, *T. sclateri*, and the present species is limited to a comparatively small area north and south of the Equator (between 25° and 35° E. long.).

[This animal was not obtained on Ruwenzori, and the natives said it did not exist there, although it was found on the plains below. A single specimen was found at Fort Beni, in the Semiliki Valley, and it is probable that it also occurs on the north-west slopes of Ruwenzori which join with the Congo Forest.—R. B. W.]

Family PROCAVIDÆ.

81. *PROCAVIA RUWENZORII* Neum.

♂. 71, 256, 624, 628; 73, 267, 268, 269. ♀. 68, 260, 261, 648, 649; 270, 271, 650. Mubuku Valley, E. Ruwenzori, 10,000 ft.

The Ruwenzori Dassie was first obtained by Sir H. H. Johnston, from whose specimens Prof. Neumann described the species.

[Only one species of Hyrax was obtained on Ruwenzori; it was found from 10,000 up to 14,200 ft., but is scarce above 12,500 ft. It was most numerous from 10,000 to 12,000 ft., frequenting the cliffs and caves among the tree-heath zone.

The noises these animals make at night are most remarkable: there are two distinct sounds—one a shrill hissing squeal very like the note of a Barn-Owl, but louder; the other a much lower-toned chattering or rattling sound, not unlike that made by a large frog, but with a hissing sound in it. The native hunters say that the male makes one sound and the female the other. They do not commence these noises immediately it is dark, as might be expected, but some hours later. The cliffs around

the camp called "Kitchuchu," at 10,000 ft., swarmed with Hyrax, and at about 8 P.M. or later they would begin their calls. First one or two would break the silence, to be answered by more from another cliff; then others would join in, till the whole valley resounded with their unearthly noises. Gradually the chorus would dwindle, till after an hour or two scarcely one would be heard. Some nights there seemed to be many more animals calling, and some nights hardly any. They were certainly weird and extraordinary noises in a weird and extraordinary place, and had ventriloquistic effects possibly caused by the great overhanging cliff under which the camp was placed, which magnified and distorted the sounds. These noises are undoubtedly responsible for the Ruwenzori "ghost-story."

In the Mubuku Valley the natives trap the Hyrax with an ingenious spring noose, following them as high as 12,500 ft. This is the origin of the path to the snows which exists in the Mubuku Valley but not in the Luimi, as the natives do not hunt the Hyrax in the latter valley. They use the fur for clothing, and also sell a great deal of it to the natives of the plains in exchange for iron tools and spear-heads. They eat the flesh, not because they prefer it, but because flesh of any sort is a highly-prized article of food. We once tried a Hyrax-stew, but it was very tough and not so good as rabbit—just what one would expect a cat to taste like. These animals are apparently nocturnal, although they were occasionally seen in the daytime when it was dark and misty.—R. B. W.]

Family SUIDÆ.

82. POTAMOCHERUS CHÆROPOTAMUS Desmoul.

♂ skull; ♀ skull (imm.). Mubuku Valley, E. Ruwenzori. 6000 ft.

These Pigs belong most probably to the subspecies from Kilimanjaro named by Dr. Forsyth Major *P. c. demonis* from a female. The female skull in this series is unfortunately too young for definite identification.

[Pigs were numerous on Ruwenzori and were found as high as 8000 ft. They were one of the most difficult animals to obtain. They come out of the dense thickets and jungle at night to feed on the native cultivations, and do enormous damage. The skulls obtained were those of Pigs killed by Lions near the camp. The Lions in this district feed almost exclusively on Pigs, and for this reason the natives dislike them being killed.—R. B. W.]

Family BOVIDÆ.

83. CEPHALOPHUS RUBIDUS Thos.

♂. Mubuku Valley, E. Ruwenzori. 10,000 ft.

[Not uncommon on Ruwenzori up to 10,000 ft., but very difficult to obtain. They

utter a curious shrill cry when disturbed. The natives occasionally catch them in large snares of thin strong creepers; they say they can also catch Pigs in this way, but failed to do so during our visit.—R. B. W.]

84. *CEPHALOPHUS ÆQUATORIALIS* Matsch.

○. 690. Avakubi, E. Congo Forest.

[Very numerous in the Congo Forest. The pigmies catch them alive in nets.—R. B. W.]

Family MANIDÆ.

85. *MANIS LONGICAUDATUS* Briss.

○. Avakubi, E. Congo Forest.

[A flat skin obtained from natives in the Congo Forest.—R. B. W.]

PLATE XX.

PLATE XX.

Rousettus lanosus Thos., p. 486.*Myosorex blarina* Thos., p. 489.



CMP-FEJ

Miles & C^o Imp.

ROUSETTUS LANOSUS

MYOSOREX BLARINA.

PLATE XXI.

PLATE XXI.

Mungos sanguineus proteus Thos., p. 496.



PLATE XXII.

PLATE XXII.

Sciurus ruwenzorii Schwann, p. 497.

Funisciurus carruthersi Thos., p. 498.



CMPFEJ

Miles & Co imp

SCIURUS RUWENZORII.

FUNISCIURUS CARRUTHERSI.

PLATE XXIII.

PLATE XXIII.

Funisciurus antoniæ Thos. & Wr., p. 498.

Leggada bufo Thos., p. 506.



CMP-FEJ

Miles & C^o imp

FUNISCIURUS ANTONIÆ

LEGGADA BUFO

PLATE XXIV.

PLATE XXIV.

Arvicanthis macculus Thos. & Wr., p. 515.

Lophuromys woosnami Thos., p. 512.



Moorepark lith.

Miles & Co imp

ARVICANTHIS MACCULUS.

LOPHUROMYS WOOSNAMI.